

**Surface Water Management Capital Improvement Program Project Descriptions  
Table of Contents**

**Funded Projects:**

<b><i>Surface Water Management CIP Summary Sheets .....</i></b>	<b><i>4-64</i></b>
<b><i>Ambaum Sub-Basin (M-11) Drainage Improvement Project .....</i></b>	<b><i>4-66</i></b>
<b><i>14th Avenue S. Drainage Improvements - Phase 2 .....</i></b>	<b><i>4-67</i></b>
<b><i>417 SW 142nd Street Infiltration Pond Expansion.....</i></b>	<b><i>4-68</i></b>
<b><i>643 SW 141st Street Infiltration Pond.....</i></b>	<b><i>4-69</i></b>
<b><i>Miller/Salmon Creek Basin Plan .....</i></b>	<b><i>4-70</i></b>
<b><i>Residential Drainage Improvement Program .....</i></b>	<b><i>4-71</i></b>
<b><i>SW 165th Street Drainage Improvement Program.....</i></b>	<b><i>4-72</i></b>
<b><i>Unfunded Projects .....</i></b>	<b><i>4-74</i></b>

**Six Year Resources needed for 2008 - 2013 CIP compared to Six Year Resources needed for 2007 - 2012 CIP**

<b>Project Name</b>	<b>2007 -2012 Required Resources (with inflation)</b>	<b>2008 -2013 Required Resources (with inflation)</b>	<b>Change</b>	<b>NOTES</b>
<b>Surface Water Management Capital Projects</b>				
Ambaum Sub-Basin (M-11) Drainage	-	-	-	Project to be done in 2007.
14th Avenue South Drainage Phase 2	-	562,000	562,000	Proposed new project in 2008.
417 SW 142nd Street Infiltration Pond Expansion	-	-	-	Project completed in 1st quarter of 2007
643 SW 141st Street Infiltration Pond	480,455	-	(480,455)	Project to be completed in 4th quarter of 2007
Miller/Salmon Creek Basin Plan	-	-	-	Plans are on hold.
SW 165th St Drainage Improvement Program	-	350,000		Broken out from Res Drainage Improvement Program project
Residential Drainage Improvement Program	1,325,900	965,974	(359,926)	\$200,000 per year - inflation
<b>Total</b>	\$ 1,806,355	\$ 1,877,974	\$ (278,381)	

## 2008 - 2013 Capital Improvement Program

## Surface Water Management

	Total Project Cost	Prior Years	2007	2008	2009	2010	2011	2012	2013	Total 6-year cost
<b>Funded Projects</b>										
Ambaum Sub-Basin (M-11) Drainage Improvement	\$ 2,801,200	\$ 706,687	\$ 2,094,513	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
14th Avenue South Drainage Phase	\$ 562,000	\$ -	\$ -	\$ 418,500	\$ 143,500	\$ -	\$ -	\$ -	\$ -	562,000
417 SW 142nd St. Infiltration Pond Exp.	118,000	78,199	39,801	-	-	-	-	-	-	-
643 SW 141st St. Infiltration	910,000	409,309	500,691	-	-	-	-	-	-	-
Miller/Salmon Creek Basin Plan	250,000	247,692	2,308	-	-	-	-	-	-	-
SW 165th St Drainage Improv	400,000	-	50,000	350,000	-	-	-	-	-	350,000
Res. Drainage Imp. Program	2,771,974	879,482	926,518	203,321	205,354	207,408	209,482	140,410	-	965,974
<b>Total Funded Projects</b>	<b>\$ 7,813,174</b>	<b>\$ 2,321,369</b>	<b>\$ 3,613,831</b>	<b>\$ 971,821</b>	<b>\$ 348,854</b>	<b>\$ 207,408</b>	<b>\$ 209,482</b>	<b>\$ 140,410</b>	<b>\$ -</b>	<b>\$ 1,877,974</b>

TOTAL FUNDING REQUIREMENTS										
Surface Water Management CIP	5,636,174	2,238,882	1,519,318	971,821	348,854	207,408	209,482	140,410	-	1,877,974
Grants	630,000	-	630,000	-	-	-	-	-	-	-
Public Works Trust Fund Loan	1,547,000	-	1,547,000	-	-	-	-	-	-	-
<b>Total Funded Projects</b>	<b>\$ 7,813,174</b>	<b>\$ 2,238,882</b>	<b>\$ 3,696,318</b>	<b>\$ 971,821</b>	<b>\$ 348,854</b>	<b>\$ 207,408</b>	<b>\$ 209,482</b>	<b>\$ 140,410</b>	<b>\$ -</b>	<b>\$ 1,877,974</b>

## Six year Funding Sources needed for 2008 -2013 SWM CIP compared to Six year Funding Sources needed for 2007 - 2012 CIP

	2007-2012 Funding Sources	2008-2013 Funding Sources	Change
SWM CIP	1,806,355	1,877,974	71,619
Grants	-	-	-
Pub. Works Trust Fund Loan	-	-	-
<b>TOTAL FUNDING SOURCES</b>	<b>1,806,355</b>	<b>1,877,974</b>	<b>71,619</b>

Ambaum Sub-Basin (M-11) Drainage Improvements

Account Number: 319-11-596-09

Work Order Number: 319-0008

## Project Description:

Final design and construction of the Ambaum Regional Pond expansion, from 2.5 acre-feet to 10 acre-feet of storage and water quality facilities; extension of a new 30" to 42" storm line in SW 150th Street, between 1st Ave S. and 4th Ave SW.

## Total Project Cost:

\$ 2,801,200

## Basis/Variables/Risks in Cost Estimate:

Underground utility conflicts may occur and contaminated soil issues could emerge.

## Estimated Maintenance and Operating Costs:

Year	2006	2007	2008	2009	2010	2011	2012	2013
Amount	\$	10,000	10,000	10,000	10,000	10,000	10,000	10,000

## Estimated Schedule/Milestones:

Proj Dev/Planning	Pre-design	Finish	Design	Construction	Completion
					1st Qtr 2008

## Change from Prior CIP:

No change

EXPENDITURES	Total	Expenses Prior to Dec 31,	2007	2008	2009	2010	2011	2012	2013	Future
Project Development/Planning	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Pre-design	2,112	2,112								
Design	211,162	191,162	20,000							
Acquisition	297,850	297,850								
Construction	2,290,076	215,563	2,074,513							
<b>TOTAL</b>	<b>\$ 2,801,200</b>	<b>\$ 706,687</b>	<b>\$ 2,094,513</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

REVENUES										
Surface Water Management CIP	\$ 624,200	\$ 624,200	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Public Works Trust Fund Loan	\$ 1,547,000		1,547,000							
WSDOT Storm Water Grant	\$ 600,000		600,000							
Port of Seattle Grant	\$ 30,000		\$ 30,000							
<b>TOTAL</b>	<b>\$ 2,801,200</b>	<b>\$ 624,200</b>	<b>\$ 2,177,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

**14th Avenue S. Drainage Improvements - Phase 2**

Account Number: 319-11-596-

Work Order Number: 319-

**Project Description:**

Acquire Property and make drainage improvements at 14th Ave S north of S 136th Street. Project will correct upstream conveyance issue. It will convert a vacant property to a regional storm water facility, consistent with the Miller Creek Basin Plan, and allow for the expansion of an existing wetland while maintaining open space and improving water quality.

**Total Project Cost:**

\$ 562,000

**Basis/Variables/Risks in Cost Estimate:**

Construction variables and bidding climate at time of construction may affect cost estimate. Predicted vs. actual site conditions is another factor affecting the cost of the project.

**Estimated Maintenance and Operating Costs:**

<u>Year</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>
<u>Amount</u>	\$							

**Estimated Schedule/Milestones:**

<u>Proj Dev/Planning</u>	<u>Pre-design</u>	<u>Design</u>	<u>Construction</u>	<u>Completion</u>
--------------------------	-------------------	---------------	---------------------	-------------------

**Change from Prior CIP:**

<b>EXPENDITURES</b>	<b>Total</b>	<b>Expenses Prior to Dec 31,</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>Future</b>
Project Development/Planning	\$ -	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Pre-design	-									
Design	27,500				27,500					
Acquisition	418,500			418,500						
Construction	116,000				116,000					
<b>TOTAL</b>	<b>\$ 562,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 418,500</b>	<b>\$ 143,500</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

<b>REVENUES</b>										
Surface Water Management CIP	\$ 562,000	\$ -	\$ -	\$ 418,500	\$ 143,500	\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTAL</b>	<b>\$ 562,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 418,500</b>	<b>\$ 143,500</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

**417 SW 142nd Street Infiltration Pond Expansion**

Account Number: 319-11-596-08

Work Order Number: 319-0006

**Project Description:** Design and expand the infiltration pond at 417 SW 142nd Street.

**Total Project Cost:** \$ 118,000 This amount does not include actual property acquisition costs incurred in 2002.

**Basis/Variables/Risks in Cost Estimate:** A 25% contingency factor was used in developing the cost estimate.

<b>Estimated Maintenance and Operating Costs:</b>	<u>Year</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	
	<u>Amount</u>	\$	<u>Unknown at present.</u>							

<b>Estimated Schedule/Milestones:</b>	<u>Proj Dev/Planning</u>	<u>Pre-design</u>	<u>Design</u>	<u>Construction</u>	<u>Completion</u>
---------------------------------------	--------------------------	-------------------	---------------	---------------------	-------------------

**Change from Prior CIP:** Project was completed in 1st quarter 2007.

<b>EXPENDITURES</b>	<b>Total</b>	<b>Expenses Prior to Dec 31,</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>Future</b>
Project Development/Planning	\$ -	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Pre-design	-									
Design	23,000	3,890	19,110							
Acquisition	-									
Construction	95,000	74,309	20,691							
<b>TOTAL</b>	<b>\$ 118,000</b>	<b>\$ 78,199</b>	<b>\$ 39,801</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

<b>REVENUES</b>										
Surface Water Management CIP	\$ 118,000	\$ 78,199	\$ 39,801	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTAL</b>	<b>\$ 118,000</b>	<b>\$ 78,199</b>	<b>\$ 39,801</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

**643 SW 141st Street Infiltration Pond**

Account Number: 319-11-596-07

Work Order Number : 319-0007

**Project Description:**

Flooding occurs in the 142nd Street Depression area in times of heavy rain. To help remedy the problem, two property/homes in the flooding area have been purchased by the City and were demolished. The properties are located at 643 and 651 SW 141st Street. Construction will build a stormwater infiltration pond at this location.

**Total Project Cost:**

\$ 910,000

**Basis/Variables/Risks in Cost Estimate:**

Construction variables and bidding climate at time of construction may affect cost estimate. Excavation of soils, including contaminated soils and disposal requirements may affect costs.

**Estimated Maintenance and Operating Costs:**

Year	2006	2007	2008	2009	2010	2011	2012	2013
Amount	\$	<i>Maintained at current level.</i>						

**Estimated Schedule/Milestones:**

Proj Dev/Planning	Pre-design	Design	Construction	Completion
				4th Qtr 2007
				95% Aug '07

**Change from Prior CIP:**

No change

EXPENDITURES	Total	Expenses Prior to Dec 31,	2007	2008	2009	2010	2011	2012	2013	Future
Project Development/Planning	\$ -		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Pre-design	27,793	27,793								
Design	26,971	26,971								
Acquisition	328,120	328,120								
Construction	527,116	26,425	500,691							
<b>TOTAL</b>	<b>\$ 910,000</b>	<b>\$ 409,309</b>	<b>\$ 500,691</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

REVENUES										
Surface Water Management CIP	\$ 910,000	\$ 409,309	\$ 500,691	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTAL</b>	<b>\$ 910,000</b>	<b>\$ 409,309</b>	<b>\$ 500,691</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

Miller/Salmon Creek Basin Plan

Account Number 319-11-596-04

Work Order Number: 319-0002

**Project Description:**

The development of the Miller and Salmon Creek Basin Plan is a cooperative inter-jurisdictional effort to study and resolve existing drainage, flooding, erosion and sedimentation, and water quality problems in the basin. The parties include the cities of Normandy Park, SeaTac and Burien, the Port of Seattle, King County, and the Washington State Department of Transportation. Burien's 50% share of the total study cost is estimated at \$202,243.

**Total Project Cost:**

\$ 250,000

**Basis/Variables/Risks in Cost Estimate:**

The Interlocal Agreement was adopted by all parties. Included in the budget are funds for a second opinion review by additional consultants.

**Estimated Maintenance and Operating Costs:**

Year	2006	2007	2008	2009	2010	2011	2012	2013
Amount	\$							

**Estimated Schedule/Milestones:**

<u>Proj Dev/Planning</u>	<u>Pre-design</u>	<u>Design</u>	<u>Construction</u>	<u>Completion</u>

**Change from Prior CIP:**

No change.

EXPENDITURES	Total	Expenses Prior to Dec 31,	2007	2008	2009	2010	2011	2012	2013	Future
Project Development/Planning	\$ 250,000	\$ 247,692	\$ 2,308	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Pre-design	-									
Design	-									
Acquisition	-									
Construction	-									
<b>TOTAL</b>	<b>\$ 250,000</b>	<b>\$ 247,692</b>	<b>\$ 2,308</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

REVENUES										
Surface Water Management CIP	\$ 250,000	\$ 247,692	\$ 2,308	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTAL</b>	<b>\$ 250,000</b>	<b>\$ 247,692</b>	<b>\$ 2,308</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>



SW 165th Street Drainage Improvement

Account Number: 319-11-596-

Work Order Number: 319-

## Project Description:

Improve local drainage along SW 165th Street between 16th and 19th Avenue SW with the use of low impact development practices.

## Total Project Cost:

\$ 400,000

## Basis/Variables/Risks in Cost Estimate:

Used engineer's estimate for cost basis. Risks in cost include construction utility conflicts, site conditions different than predesign anticipations, contractor experience, and expertise.

## Estimated Maintenance and Operating Costs:

Year	2006	2007	2008	2009	2010	2011	2012	2013
Amount	\$							

## Estimated Schedule/Milestones:

Proj Dev/Planning	Pre-design	Design	Construction	Completion

## Change from Prior CIP:

This project was previously included in the Residential Drainage Improvement Program.

EXPENDITURES	Total	Expenses Prior to Dec 31,	2007	2008	2009	2010	2011	2012	2013	Future
Project Development/Planning	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Pre-design	-									
Design	50,000		50,000							
Acquisition	-									
Construction	350,000			350,000						
<b>TOTAL</b>	<b>\$ 400,000</b>	<b>\$ -</b>	<b>\$ 50,000</b>	<b>\$ 350,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

REVENUES										
Surface Water Management CIP	\$ 400,000	\$ -	\$ 50,000	\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTAL</b>	<b>\$ 400,000</b>	<b>\$ -</b>	<b>\$ 50,000</b>	<b>\$ 350,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

## Residential Drainage Improvement Program

**Work Order Number : 319-0004**

Numerous gaps exist in Burien's drainage and surface water management facilities, resulting in problems that impact homes adjacent to residential streets. Also, existing surface water management facilities require rehabilitation to ensure functional operation. The following projects are planned for 2007-2008:

Miscellaneous	\$9,648	14th Ave S. Drainage Upgrade (Between 132nd & 134th)	\$360,000
---------------	---------	---	-----------

**Total Project Cost:** \$ 965,974 for the six year period 2008-2013.

Basis/Variables/Risks in Cost Estimate:	Need for easements, construction utility conflicts, site conditions differing from that anticipated during design; competition for contracts among contractors, contractor experience and expertise.
---	--

Estimated Maintenance and Operating Costs:	Year	2006	2007	2008	2009	2010	2011	2012	2013
	Amount	\$							

Estimated Schedule/Milestones:	<u>Proj Dev/Planning</u>	<u>Pre-design</u>	<u>Design</u>	<u>Construction</u>	<u>Completion</u>
--------------------------------	--------------------------	-------------------	---------------	---------------------	-------------------

**Change from Prior CIP:** SW 165 & 15th Ave SW excluded and shown as a separate project, \$50,000 (design) & \$350,000 (Construction).  
14th Ave S Drainage Improvements Ph 2 also excluded and shown as a new project.

		Expenses Prior to Dec 31, 2006	2007	2008	2009	2010	2011	2012	2013	Future
<b>EXPENDITURES</b>	<b>Total</b>									
Project Development/Planning	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Pre-design										
Design	470,369	262,595	59,496	30,528	30,833	31,142	31,453	24,323	-	
Acquisition	-									
Construction	2,301,605	616,887	867,022	172,793	174,521	176,266	178,029	116,087		
<b>TOTAL</b>	<b>\$ 2,771,974</b>	<b>\$ 879,482</b>	<b>\$ 926,518</b>	<b>\$ 203,321</b>	<b>\$ 205,354</b>	<b>\$ 207,408</b>	<b>\$ 209,482</b>	<b>\$ 140,410</b>	<b>\$ -</b>	<b>\$ -</b>

REVENUES										
Surface Water Management CIP	\$ 2,771,974	\$ 879,482	\$ 926,518	\$ 203,321	\$ 205,354	\$ 207,408	\$ 209,482	\$ 140,410	\$ -	\$ -
TOTAL	\$ 2,771,974	\$ 879,482	\$ 926,518	\$ 203,321	\$ 205,354	\$ 207,408	\$ 209,482	\$ 140,410	\$ -	\$ -

**This page intentionally left blank.**

**Surface Water Management Unfunded Projects (in 2014 dollars) These are very preliminary estimates.**

The following projects were identified in the May 2005 Storm Drainage Master Plan. Projects included in the Master Plan and also identified in the Miller/Salmon Creek Basin Plans are denoted with an asterisk.

<b><u>New Storm Drainage System at 1st Avenue South &amp; SW 132nd Street (A)</u>.....</b>	<b>\$494,274</b>
New storm drainage system will reduce existing flooding problem at closed depression. Provide new 36-inch diameter pipe and catch basins to route storm water runoff around existing residences. Acquire a storm drainage easement for the portion of the new storm drainage system that is to be located on private property. Periodic maintenance reduces problem significantly. Anticipate completion of a permanent solution as part of future development.	
<b><u>New Storm Drainage System at 1st Avenue South &amp; SW 132nd Street (B)</u>.....</b>	<b>\$1,199,868</b>
New storm drainage system will reduce existing flooding problem at closed depression. Provide new 36-inch diameter pipe and catch basins to route storm water runoff around existing residences. Provide stormwater wetland in the undeveloped parcels located south of the problem area. Acquire a storm drainage easement for the portion of the new storm drainage system that is to be located on private property. Periodic maintenance reduces problem significantly. Anticipate completion of a permanent solution as part of future development.	
<b><u>Acquisitions of Local Depressions at 4th Avenue South at South 132nd Street</u> .....</b>	<b>\$125,359</b>
Purchase properties and provide maintenance for these depressions. The existing depressions provide pre-settling for stormwater runoff before it is routed to the Chelsea Infiltration Pond. Purchasing the properties will ensure that it will not be developed in the future, and it will allow City staff access to maintain storm drainage inlets and outlets, and vegetation in the depressions.	
<b><u>SW 132nd Street Flooding (Between Ambaum Blvd SW and 8th Ave. SW)</u>.....</b>	<b>\$44,771</b>
Acquire storm drainage easements to gain maintenance access to the undeveloped property north of the problem area. Perform base mapping of the existing drainage system/flow paths in the area and investigate the need to increase the hydraulic capacity of the downstream conveyance system. Maintenance of the existing drainage system will increase the hydraulic capacity which should reduce localized flooding. (Note: Anticipate completion with future development of parcel(s) in the vicinity.)	

<b>* Hermes Depression</b> .....	<b>\$3,375,748</b>
Excavate area to the east of the existing depression to provide additional storage volume and infiltration capacity. Construct stormwater wetlands and a bioswale upstream of the new infiltration area. Provide interpretive signs, trails, and other park amenities. Upgrade pump station as recommended in the December 2, 2002 Hermes Improvements Concepts Report by CH2M HILL. The additional storage and infiltration capacity in the depression will reduce localized flooding. Stormwater wetlands will provide additional WQ treatment. Park amenities will create a recreational and educational facility for public use. Pump system improvements will reduce O&M costs. <i>Note: A second pump improvement option has been proposed as part of the Miller Creek Basin Plan Project.</i>	
<b>Mayfair Depression</b> .....	<b>\$1,796,220</b>
Purchase property and excavate existing depression to the south of the Mayfair Regional Detention Pond. This will create more storage volume and reduce localized flooding. Provide interpretive signs, trails and other park amenities. Park amenities will create a recreational and educational facility for public use.	
<b>South 140th Street Horse Pasture</b> .....	<b>\$687,686</b>
Replace existing 12-inch diameter pipe and catch basins with 36-inch diameter pipe and catch basins. Acquire easement for new storm drain system. Additional hydraulic capacity of new storm drainage system will reduce future flooding. (Note: Could be completed as part of future parcel development.)	
<b>14th Avenue South between S. 128th and S. 130th St.</b> .....	<b>\$983,277</b>
Replace existing pipe and catch basins. Acquire storm drain easement over new storm drainage system. Provide underground detention system. Additional hydraulic capacity of the new storm drain line will eliminate localized flooding. The detention tank will mitigate the increase in peak flows that could result from the construction of the new storm drain system at the problem area.	
<b>*Chelsea Pond Pump Adjustment</b> .....	<b>\$0</b>
Adjust existing pump system at the Chelsea infiltration pond in order to increase the amount of stormwater that is stored and/or infiltrated. Increasing the amount of stormwater that can be stored and infiltrated in the Chelsea infiltration pond will decrease the peak flows that are routed downstream to Miller Creek.	
<b>*Seattle City Light Property Regional WQ Facility</b> .....	<b>\$1,074,509</b>
Construct regional water quality facility. WQ facility will improve the water quality of runoff that is routed to Miller Creek. (Basin Plan estimated cost is \$1.2 million, with City share estimated at 50%.)	
<b>*SW 136th Street Low Impact Development</b> .....	<b>TBD</b>
Construct Low Impact Development features in residential area. Low Impact Development features will help recharge groundwater and reduce the peak flows that are routed to Miller Creek.	

<b><u>SW 136th Street Wetland Enhancement</u></b> .....	<b>\$436,967</b>
Purchase property and clear noxious weeds in the existing wetland. Provide interpretive signs on the property. This wetland detains and treats runoff that is routed to Miller Creek. Purchasing the property will prevent development of the area around the existing wetland, and it will provide City staff access to maintain the wetland vegetation and storm drainage inlet and outlet. It also provides possible wetland mitigation for improvements on other projects in the sub-basin. Educational signage will enhance the educational value of the property.	
<b><u>*South 144th Street Side Channel</u></b> .....	<b>Hold</b>
Expand flood plain and excavate side channel for Miller Creek north of S. 144th Street. Improve stream habitat in Miller Creek north of S. 144th Street. Improve wetland vegetation in the wetland south of S. 144th Street. Flood plain and side channel will provide additional storage volume to help reduce localized flooding. Side channel excavation and stream habitat improvements will provide rearing habitat for juvenile salmonids. Wetland vegetation will enhance wildlife habitat. It also provides possible wetland mitigation for this project and other projects in this sub-basin. (Note: 1.3 acre Mah property purchased in April 2005 for this project and Grange property, which is adjacent to Mah Property, acquired in 2005.)	
<b><u>21st Avenue SW Storm Drainage System</u></b> .....	<b>\$331,307</b>
Provide new 24-inch diameter outlet pipe and catch basin. Abandon existing pipe and catch basins. Perform base mapping to confirm condition and location of the downstream storm drainage system from S. 152nd Street to Lake Burien. New drainage system will reduce flooding by routing water to the existing drainage ditch in 20th Avenue SW.	
<b><u>Drainage System at SW 129th Street</u></b> .....	<b>\$198,784</b>
Replace existing concrete open channel with 24-inch diameter drain line. Replace existing catch basin. New storm drain line and catch basin will reduce safety and flooding problems associated with the existing concrete open channel.	
<b><u>South 192nd Street Detention</u></b> .....	<b>None</b>
The depression acts as a storm drainage pond for the residential development at 6th Place South. Acquire a storm drainage easement at the existing depression, which will provide City staff access to maintain the storm drainage inlet and outlet, and vegetation in the depression.	

<b><u>25th Avenue SW Drainage System</u></b> .....	<b>\$1,185,541</b>
Provide new 18- to 24-inch diameter pipe along 25th Avenue SW and connect to the existing storm drainage system located at Maplewild Avenue SW. Acquire storm drainage easement for the portion of the new storm drainage system that is located on private property. Provide WQ treatment manhole (e.g., Stormceptor) at the downstream end of the new storm drainage system. New storm drainage system reduces property flooding on the west side of 25th Ave SW. WQ treatment manhole will remove oil and sediment from street runoff.	
<b><u>Maplewild Avenue SW Drainage System Outlet at SW 156th Street</u></b> .....	<b>\$456,666</b>
Replace existing catch basin, reline existing discharge pipe, and provide new outfall structure. New discharge pipe reduces risk of hillside erosion. New outlet structure reduces beach erosion.	
<b><u>SW 174th Street Storm Drainage System Outlet at 21st Avenue SW</u></b> .....	<b>\$1,239,267</b>
Abandon existing pipe. Provide new 24-inch diameter pipe (Jack & Bore Construction) and outlet structure to the southeast along existing storm drainage easement. Cost estimate assumes horizontal drilling techniques for pipe construction. Provide WQ treatment manhole (e.g., Stormceptor) in the ROW. Will reduce risk of erosion to hillside and damage to parking garage and private residence.	
<b><u>SW 172nd Street Outlet</u></b> .....	<b>\$51,935</b>
Provide concrete headwalls with stainless steel debris barriers at 3-outlet pipe. Debris barriers will prevent pipe outlets from being entirely blocked with debris.	
<b><u>*Overflow Replacement at Salmon Creek Bypass</u></b> .....	<b>\$91,333</b>
Replace overflow pipe from flow splitter at the bypass line to the outfall into Salmon Creek. The new bypass pipe will reduce safety, erosion, and maintenance problems associated with the deteriorating pipe.	
 <b>UNFUNDED PROJECTS TOTAL</b>	 <b><u><u>\$13,773,511</u></u></b>

**This page intentionally left blank.**